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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/753,318	12/28/2000	Hideki Katsura	07977/262001/US4542	1195

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EXAMINER

DUDEK, JAMES ANDRE

ART UNIT	PAPER NUMBER
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2871

DATE MAILED: 07/31/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/753,318

Applicant(s)

KATSURA, HIDEKI

Examiner

James A. Dudek

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 July 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) 1-13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 14-26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The limitation "having a hole portion being possible to injecting" is nonsensical.

The limitation "preforming an orientation film to each of the element and opposing substrate" is confusing because the films have already been formed. The examiner assumes applicant is referring to some sort of alignment treatment.

Per all elected independent claims, the limitation (or similar limitations) "separating the joined element and opposing substrates to form at least the liquid crystal display device" is confusing because if you separate the joined substrates, the result would not be a display device. It would be two separate substrates without coordination between the two substrates. Examiner assumes applicant is referring to forming several cells from a large substrates and then scribing the substrates in order to form multiple cell at the same time.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over the Fujimura et al. JP Patent ('132).

'132 teaches preparing an element substrate and an opposing substrate (31,32), one of said element and opposing substrates having a hole portion for injecting LC (see figures); forming an orientation film and patterning the alignment film (see line 5 of the constitution); forming a sealing material on one of the substrates (17); joining the substrates (as the substrates

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are shown in the figures as being joined); and injecting the LC material into the hole (see constitution).

Lacking from '132 is the step of separating the joined element and opposing substrate to form a display device. However, it was well known or common knowledge to form several cells simultaneously using bulk substrates and at the end of the process scribing the substrates to separate the cell into several single displays in order to decrease processing time. Accordingly, it would have been obvious to one of ordinary skill at the time the invention was made to combine the well known bulk method of manufacturing liquid crystal cell with '132 in order to decrease processing time.

Claims 15-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Takada JP Patent ('800).

Per claims 15-20, '800 teaches preparing an element substrate and an opposing substrate (pair of bases); forming a sealing material on one of the substrates (1); joining the substrates (since an LC cell is formed, the substrates must be joined); an injection port (5), a seal stopper (2) injecting the LC material (see constitution).

Lacking is the seal formed to surrounding the pixel and driving circuits and separating the substrates. However, it was well known to form the seal such that the seal is surrounding the driving circuit in order to decrease the cell size and to form several cells at one time and separating the cells. Accordingly, it would have been obvious to one of ordinary skill at the time the invention was made to combine the well known seal member surrounding the drive circuit and the bulk substrate with '800 in order decrease cell size and decrease processing time.

Regarding claim 19, '800 lacks the damning portion. However it was well known to use a damning portion in order to prevent the plug from protruding into the cell chamber. Accordingly, it would have been obvious to one of ordinary skill at the time the invention was made to combine the well known damn and '800 in order to prevent the plug from protruding into the cell chamber.

Claims 21 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Nakanowatari patent ('025).

'025 teaches an injection port in the corner. Lacking is the seal formed to surrounding the pixel and driving circuits and separating the substrates. However, it was well known to form the

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seal such that the seal is surrounding the driving circuit in order to decrease the cell size and to form several cells at one time and separating the cells. Accordingly, it would have been obvious to one of ordinary skill at the time the invention was made to combine the well known seal member surrounding the drive circuit and the bulk substrate with '025 in order decrease cell size and decrease processing time.

Regarding claim 19, '025 lacks the damning portion. However it was well known to use a damning portion in order to prevent the plug from protruding into the cell chamber. Accordingly, it would have been obvious to one of ordinary skill at the time the invention was made to combine the well known damn and '800 in order to prevent the plug from protruding into the cell chamber.

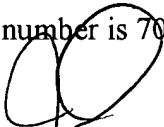
Claims 21-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Nakanowatari patent ('025) in view of '800.

'025 lacks the stopper portion. However, '800 teaches a stopper portion to arrest turn around and dispense with a cleaning process. Accordingly, it would have been obvious to one of ordinary skill at the time the invention was made to combine the stopper of '800 with '025 in order to dispense with the cleaning process.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James A. Dudek whose telephone number is 308-4782. The examiner can normally be reached on 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William L Sikes can be reached on 703-308-4842. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7721 for regular communications and 703-308-7721 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.



James A. Dudek
Primary Examiner
Art Unit 2871

July 23, 2002